


Aumictech

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

ACROMAG / XEMBEDDED / XYCOM

Acromag / Xembedded / Xycom XVME-542 Analog Input/Output Module

Acromag / Xembedded / Xycom Data Acquisition Systems (DAQ). Voltage / Current Range: $\pm 10V$ (analog input); 4-20mA, $\pm 10V$ (analog output); 5V $\pm 5\%$ @ 1.8A to 2.75A, $\pm 2.5V$, $\pm 5V$, 0-10V, 0-5V, Voltage: 44 V (powered), Voltage: -11 V to +13 V.



MODEL

Acromag /
Xembedded /
Xycom XVME-542

CALIBRATION

Available on
request

CONDITION

Used

STATUS

In stock

RFQ / SKU

XVME-542

LISTING

<https://aumictechlabs.com/products/xvme-542-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Acromag/Xembedded/Xycom XVME-542 is a VMEbus-compatible analog input/output module engineered for industrial process control, automation, and high-resolution data acquisition. It integrates 16-bit ADC and 12-bit DAC capabilities in a single form factor, delivering flexible channel configurations and programmable gain control across multiple voltage ranges. Technical Specifications Analog Input 16-bit ADC with 0.003% FSR accuracy (single-channel mode) and 0.006% FSR (other modes) Configurable as 64 single-ended, 32 differential, or 64 pseudo-differential channels Input ranges: 0-5 V, 0-10 V (unipolar); $\pm 5V$, $\pm 10V$ (bipolar) Software-programmable gains: Range 1 (1, 2, 5, 10), Range 2 (4, 8, 20, 40), Range 3 (10, 20, 50, 100) 10 μ sec acquisition and conversion time; 16 μ sec settling time Throughput: 100 kHz (single-

channel), 62.5 kHz (autoscanning), 38.5 kHz (other modes) Five operating modes: random channel, sequential channel, single-channel, external trigger, autoscanning (8/16/32/64 channels) Maximum input voltage: 44 V (powered), 30 V (unpowered) Input impedance: 18 M Ω minimum; bias current ± 200 pA max; input capacitance 100 pF max Operating common mode voltage: -11 V to +13 V Analog Output 12-bit DAC with 8 output channels Voltage outputs: 4-20 mA, 0-5 V, 0-10 V, ± 2.5 V, ± 5 V, ± 10 V; current outputs supported 5 mA output drive (voltage); transparent or simultaneous update modes D/A latch readback capability; analog ground reference for current return Power & Interface 5 V $\pm 5\%$: 1.8 A typical (voltage outputs full scale), 2.75 A typical (current outputs full scale) VMEbus Standard I/O Architecture compliance Eight-position addressing switch; three-position interrupt level select switch Key Features Flexible input channel multiplexing across single-ended, differential, and pseudo-differential topologies Programmable gain control enabling signal conditioning across three independent ranges Simultaneous analog output update capability for synchronized multi-channel control External trigger support for time-synchronized acquisition Typical Applications Process control systems, automated test equipment, multi-channel sensor interfacing, industrial data logging, and control systems requiring high-resolution analog I/O in VMEbus environments. Compatibility & Integration Fully compatible with VMEbus Standard I/O Architecture, ensuring consistent programming across Xycom/Xembedded module families. Supports both supervisory and non-privileged access modes with configurable short I/O or standard address space selection.

XVME542 Characteristics / Specifications

PARAMETER	VALUE
Model	XVME-542
Instrument Type	VME analog I/O module
Form Factor	6U VME
Function	analog input and output
Bus Interface	VMEbus slave
Manufacturer	Xycom / Xembedded / Acromag
Series Family	XVME analog I/O
Operating Temperature Class	0 C to 65 C industrial
Storage Temperature Class	minus 40 C to 85 C class
Resolution Class	12 bit industrial ADC DAC class
Input Ranges Class	selectable bipolar unipolar
Output Ranges Class	selectable voltage current class
Channel Count Class	multi channel AIO
Isolation Class	channel or group isolation options
Power Plus 5 V	VME backplane
Use Case	industrial analog control
Connector	front panel mass termination
Programming	memory mapped registers
Calibration	onboard pot or digital cal class
Humidity Class	5 to 95 percent non condensing
MTBF Class	industrial VME board
Related Models	XVME-212 XVME-630
Storage temperature	Class: minus 40 C to 85 C class
Operating temperature	Class: 0 C to 65 C industrial
Humidity	Class: 5 to 95 percent non condensing

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 40 C to 85 C class
Operating temperature	Class: 0 C to 65 C industrial
Operating Temperature	Class: 0 C to 65 C industrial
Humidity	Class: 5 to 95 percent non condensing
Operating Temperature Class	0 C to 65 C industrial
Storage Temperature Class	minus 40 C to 85 C class
Resolution Class	12 bit industrial ADC DAC class
Input Ranges Class	selectable bipolar unipolar
Output Ranges Class	selectable voltage current class
Channel Count Class	multi channel AIO
Isolation Class	channel or group isolation options
Power Plus 5 V	VME backplane
Use Case	industrial analog control
Connector	front panel mass termination
Programming	memory mapped registers
Calibration	onboard pot or digital cal class
Humidity Class	5 to 95 percent non condensing
MTBF Class	industrial VME board
Related Models	XVME-212 XVME-630 Notes Identity and AIO role from Acromag/Xycom XVME-542 product listings. Exact channel counts and ranges are configuration-specific on the board variant.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	XVME-542
Instrument Type	VME analog I/O module
Form Factor	6U VME
Function	analog input and output
Bus Interface	VMEbus slave
Manufacturer	Xycom / Xembedded / Acromag
Series Family	XVME analog I/O
Operating Temperature Class	0 C to 65 C industrial
Storage Temperature Class	minus 40 C to 85 C class
Resolution Class	12 bit industrial ADC DAC class
Input Ranges Class	selectable bipolar unipolar
Output Ranges Class	selectable voltage current class
Channel Count Class	multi channel AIO
Isolation Class	channel or group isolation options
Power Plus 5 V	VME backplane
Use Case	industrial analog control
Connector	front panel mass termination
Programming	memory mapped registers
Calibration	onboard pot or digital cal class
Humidity Class	5 to 95 percent non condensing
MTBF Class	industrial VME board
Related Models	XVME-212 XVME-630
Notes	
Identity and AIO role from Acromag/Xycom XVME-542 product listings. Exact channel counts and ranges are configuration-specific on the board variant.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.